

a1
conv.

Figure 3 is a graph that illustrates one embodiment of a spectrum allocation for upstream data channels for a cable modem termination system according to the teachings of the present invention.

Figure 4 is a block diagram of one embodiment of a system including a cable modem termination system that supports multiple downstream channels according to the teachings of the present invention.--

Please delete the second paragraph on Page 6, lines 12-26, and replace it with:

a2
FIG. 6

--Figures 1B₁ and 1B₂ are block diagrams of one embodiment of a circuit, indicated generally at 100, for a cable modem termination system that supports multiple downstream channels according to the teachings of the present invention. Circuit 100 advantageously increases the port density without increasing the size of the card or chassis compared to existing systems by including a plurality of media access control (MAC) circuits 106-1, . . . , 106-N on the same card or chassis. Each of the MAC circuits 106-1, . . . , 106-N supports a separate downstream channel and a separate plurality of upstream channels. In other words, each MAC circuit 106-1, . . . , 106-N supports a separate MAC domain. The added channels allow circuit 100 to provide a higher number of homes passed compared to existing systems. Further, all of MAC circuits 106-1, . . . , 106-N share the same downstream port 114 and the same upstream ports 116-1, . . . , 116-K. Thus, circuit 100 can be used in the same physical space as existing cards or chassis, thereby increasing the port density without requiring a complete modification of the physical structure of existing systems.--

Please delete the second full paragraph on Page 9, lines 14-25 and replace it with:

a3

--Figure 4 is a block diagram of one embodiment of a system, indicated generally at 400, including a multi-channel cable modem termination system 404 that supports multiple downstream channels according to the teachings of the present invention. System 400 includes head end 402. Among other components, head end 402 includes a multi-channel CMTS 404 that supports multiple downstream channels and multiple

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upstream channels on a single card or chassis. Advantageously, CMTS 404 has a physical configuration that uses the same number of upstream and downstream ports as in existing cards and chassis, but provides more downstream and upstream channels than existing cards and chassis. Thus, CMTS 404 allows a larger number of subscribers to be supported than existing CMTS cards and chassis. In one embodiment, CMTS 404 is constructed as described above with respect to Figures 1A, 1B₁ and 1B₂, 2, and/or 3.--

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cont.

Year	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	